



NOTES ON THE SUB-FAMILY *BRACHYSCELINÆ* WITH  
DESCRIPTIONS OF NEW SPECIES.—PART IV.

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(Plate XIX.)

Before describing several new species obtained during last year, I propose to rectify some errors in my previous papers on the gall-making coccids with regard to their classification.

In his last contribution to the study of the family *Coccidae*\* Mr. Maskell, when dealing with the nomenclature of the sub-families, formed the sub-family *Idiococcinae* for the reception of his genera *Spharrococcus*, *Cylindrococcus*, and *Preuschia*. Many members of the above genera form regular galls, but others only waxy tests, while none of their galls are of the solid woody consistency of those of the Brachyscelid coccids; and the female coccids themselves differ structurally from the females of the latter. The Eucalyptus-gall coccids consisting of Schrader's three genera *Brachyscelis*, *Opisthoscelis*, and *Ascelis* coming into the sub-family *Brachyscelinæ* form another very natural group of the family *Coccidae*.

When re-describing *Opisthoscelis subrotunda*, Sch., in my earlier paper†, I stated that the larva had tarsi terminating in two claws, which, as Mr. Maskell has pointed out, would remove them from the *Coccidae* into the family *Psyllidae*; what I mistook for the second claw, I find upon more careful examination to be the lower digitule, appendages like fine spines springing from the extremity of the tarsi.

\* Maskell, Trans. N.Z. Inst. Vol. xxv. p. 236, 1892.

† Notes on the Family *Brachyscelidae*, P.L.S. N.S.W. (2 Ser.) Vol. viii., p. 209, 1893).

## BRACHYSCHELIS DIPSACIFORMIS n.sp.

(Plate XIX., fig. 1.)

♀. Gall 6 lines high,  $4\frac{1}{2}$  in diameter, generally oval but sometimes rounded at base, black to dark reddish brown in colour; produced upon the twigs of a slender-leaved eucalypt, sometimes solitary but chiefly in bunches of two or three; they grow out at the base like a small button, with the spines forming an erect mass on the upper surface, but as the gall matures it gradually forms a round solid centre with these spines turning downwards into a regular prickly covering, which reminds one of a small teasle. The walls of the galls are thin and solid; the chamber oval; the apical orifice small and circular, with the spines surrounding it often broken away or aborted into little woody bracts.

♀. Coccid dull yellow, short and stout, very hairy; the legs short with very small tarsal claws; dorsal side, the abdominal segments each bearing a row of very long slender spines, and thickly fringed with long hairs, increasing in density towards the tip where they form a regular brush; the anal appendages black, short, stout, and cylindrical, with a distinct median division and V-shaped cleft at the tips, which are slightly pointed. Upon the ventral side the hairs are of a pale golden yellow and much longer than the anal appendages. The coccid here described was dead and partially dried up when taken out of the gall.

♂. Gall and coccid unknown.

*Hab.* — North Queensland (Mr. F. M. Bailey).

I am indebted to my friend Mr. J. G. O. Tepper, of the Adelaide Museum, for the opportunity of describing this curious little gall, which he informs me was forwarded to him from Brisbane by the Government Botanist (Mr. F. M. Bailey), with the information that it came from North Queensland.

## BRACHYSCELIS SESSILIS n.sp.

(Plate XIX., fig. 2.)

♀. Gall forming a rounded or oblong swelling on the branch, out of the centre of which springs up a tubular gall from 2 to 4 lines in height above the excrescence on the branch; 4 lines in diameter and perfectly flat on the truncated apex, with the exception of the small cone-shaped projection in the centre, encircling the minute apical orifice. The walls of the galls are stout and solid, containing a chamber rounded at the base and pointed towards the apex; each of these galls is distinct from the large swelling upon the branch from which they project, and can be detached without breaking.

♀. Coccid dull yellow, 4 lines in length, broad and round at apex, central lobe with two very small antennae and short fore-legs, the second pair rather large, with the hind pair largest, the first joint swollen and almost globular; the last thoracic segment broad, the first four abdominal ones regular, and tapering sharply to the tip, the anal segment, bearing the anal appendages, rounded. Dorsal view, head, and thoracic segments covered with very fine scattered tubercles, but bearing no regular spines; first abdominal segment with short irregular black spines along the apical margin, on the second segment increasing in numbers and regularity until on the last two forming a close regular ridge of stout black spines; anal appendages black, very short, broad at the base, conical and almost in contact at the base until near the apex, opening into a V-shaped angle; the whole coccid lightly covered with hairs, thickest towards the extremity of the abdomen.

♂. Gall and coccid unknown.

*Hab.*—Wallsend, near Newcastle. On a small rough-barked *Eucalyptus* sp.

*BRACHYSCELIS THORNTONI*, Froggt.

In my description of this species in a previous paper\* I have confounded two very distinct species, a collection of fresh material which I collected last year at Wallsend having convinced me of my mistake. The former description will stand for the female gall in an immature state (also figured in the plate), but that of the male gall mass as there described must be withdrawn.

The male gall mass of this species is very variable in shape and size, often much curved and distorted, covered with warty excrescences and the edges broken and irregular, but the coccid tubes always coalesce and are not separated or distinct by themselves.

It is one of the most prolific species; I have seen some trees about Wallsend which are simply one mass of these galls; the more mature galls become more oval and lose the very pronounced ribs so conspicuous in the very young ones.

*BRACHYSCELIS ROSEFORMIS*, n.sp.

(Plate XIX., fig. 3.)

♀. Gall 9 lines in length, not more than  $1\frac{1}{2}$  lines in diameter at the base, gradually swelling out to three lines at the apex; brown to pale red; rather wrinkled on the surface; walls of the chamber thin, the chamber tubular, extending from the base to the tip; apical orifice small, circular, apex of gall truncate; sometimes the gall stands straight out from the leaf, but more frequently hangs downward along it.

♂. Gall forming a wrinkled irregular mass, growing from the side of the female gall close to the tip, swelling out into a rugose reddish brown mass, with the upper surface slightly concave,  $1\frac{1}{2}$  inches across at the widest diameter and about a quarter

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\* P.L.S. N.S. W. (2 Ser.) Vol. vii., p. 371-72, 1892.

of an inch in thickness, containing over 1000 pale pink larval tubes, each of which is a distinct individual tube separated from any other at the tip.

*Hab.*—Wingham, Manning River (Mr. William Allan).

The specimen from which this is described was received with the note that it was not uncommon in that district. It consisted of single large Eucalyptus leaf carrying five female galls, surmounted with gall masses nearly as large as the one described, with several smaller ones, all of which sprang from the edge of the midrib of the leaf.

I have another variety of this gall obtained by the Rev. T. W. Alkin near Campbelltown, which is much more uniform in shape than the former; in this specimen there are six bright pink coloured galls springing from either side of the midrib of a very slender Eucalyptus leaf; the female gall is not more than half the length, the male gall mass much more funnel-shaped, containing on an average about 100 male tubes in each mass.

The gall described as the male of *B. Thorntoni* is another variety close to the Campbelltown one, of which I have had four specimens from around Wallsend.

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#### EXPLANATION OF PLATE.

*Brachyscelis dipsaciformis.*

Fig. 1.—Female galls upon twig.

*B. sessilis.*

Fig. 2.—Female galls growing out of a branch.

*B. rosæformis.*

Fig. 3.—Female galls, each with its attached mass of male galls; towards the tip of the leaf are other immature galls.